



Oregon

Theodore Kulongoski, Governor

Department of Environmental Quality

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June 23, 2003

Colonel Richard W. Hobernicht
U.S. Army Corps of Engineers
P.O. Box 2946
Portland, OR 97208-2946

Dear Colonel Hobernicht:

The Department of Environmental Quality (DEQ) has reviewed the U.S. Army Corps of Engineers' (Corps) [requests for water quality certification](#), dated September 4, 2002, November 26, 2002 and March 28, 2003. The Corps Portland District proposes to deepen the Columbia River Navigation Channel between River Mile (RM) 3.0 and RM 106.5, including the area adjacent to Port of Portland Terminal 6 in the Oregon Slough. The federally authorized channel in this reach is 40 feet deep and 600 feet wide. Deepening will be accomplished by dredging restricting shoals consisting of naturally occurring sedimentary material to a depth of 43 feet. Up to five feet of overdepth dredging and 100 feet of overwidth dredging may occur in selected high volume shoal areas.

DEQ has reviewed the project and made the findings in the attached *Findings and Evaluation Document*.

CONDITIONS

Dredging

The following conditions shall apply to the dredging component of this project:

Timing

Dredging may be conducted year-round in the existing federal navigation channel. However, dredging in areas outside the 600-foot designated navigation channel including turning basins, berthing areas and any overwidth dredging outside the 600 foot channel must adhere to ODFW in-water work periods approved by state and federal fishery management agencies. These periods are described in: [Oregon Guidelines for Timing of In-Water Work to Protect Fish and Wildlife Resources](#).

No obstruction or impediment to fish passage is to occur.



Turbidity

All dredging of sediments shall be conducted so as to minimize siltation and turbidity in the Columbia River. Turbidity shall not exceed 10 percent above natural stream turbidities, except where allowed by OAR 340-41-0205(2)(c). This rule states, in part, that limited duration activities necessary to accommodate essential dredging, and which cause the turbidity standard to be exceeded may be authorized provided all practical turbidity control techniques have been applied and a Section 401 water quality certificate has been granted.

Turbidity shall be measured during in-water dredging and recorded at a minimum every two hours during periods of active dredging. The designated person attending the monitoring equipment shall be responsible for notifying the project foreman of any exceedance of the turbidity standard. Monitoring points shall be 100 feet upstream (representative background), 100 feet downstream, and at the discharge point. A turbidimeter is to be used. Recorded turbidity of greater than 10 percent at a point 100 feet below the discharge point is an exceedance of the standard. If a 10 percent exceedance of the background level occurs at 100 feet below the project site, the applicant is required to modify or stop the activity causing the problem and continue to monitor every two hours.

Dissolved Oxygen

During dredging activity in areas outside the bounds of the 600-foot wide navigation channel, including turning bays outside the 600-foot channel, side slopes of the channel, and the 100 foot overwidth dredging area, dissolved oxygen levels shall be measured and recorded at a minimum, every two hours, during periods of active dredging. If dissolved oxygen levels fall below 6.5 mg/l, the applicant is required to modify the activity and continue to monitor every two hours. If dissolved oxygen levels fall below 6.0 mg/l as an instantaneous concentration, work shall stop until dissolved oxygen levels return above 6.0 mg/l. The designated person attending the monitoring equipment shall be responsible for notifying the project foreman of any exceedance of the dissolved oxygen standard. Monitoring points shall be 100 feet downstream, and at the discharge point.

Best Management Practices

Dredging operations shall be conducted employing Best Management Practices (BMP's) which minimize disturbance or siltation to adjacent habitat or waters.

If a bucket dredge of any type, including but not limited to grab or clamshell, dipper, dragline, or backhoe bucket, is used, all digging passes of the bucket shall be completed without any material, once in the bucket, being returned to the wetted area. No dumping of partial or full buckets of material back into the project area will be allowed. No dredging of holes or sumps below maximum depth and subsequent redistribution of sediment by dredging, dragging, or other means will be allowed. All large man-made debris observed in dredged materials shall be removed prior to flow lane disposal and transported to an appropriate disposal site.

In order to help control turbidity, hopper and pipeline dredges shall be operated with the intake head at or below the surface of the sediments being removed during all periods of operation. Reverse purging of the intake line shall be kept to an absolute minimum. Should purging be necessary, the intake line shall be raised no more than three feet from the bottom. If water is pumped through the dragheads to flush out the hopper dredge bins, the heads shall be at least 20 feet below the water surface.

Toxics Sampling and Analysis

Sampling of sediments throughout the entire depth of dredging and analysis for toxic and metal contaminants shall be conducted prior to dredging for those areas to be dredged outside the 600-foot wide federal navigation channel, including turning basins and berthing areas.

Sampling and analysis shall be conducted in accordance with the [Dredged Material Evaluation Framework](#) (DMEF). Results shall be provided to the Adaptive Management Team (AMT) detailed below. Dredging and disposal of sediments from these areas shall be conducted in accordance with the directions of the AMT. Any such sampling and analysis shall be conducted such that the Adaptive Management Team receives the results not less than 30 calendar days prior to dredging on the area sampled.

Spills

Petroleum products, chemicals, or other deleterious waste materials shall not be allowed to enter waters of the State. All fuel hoses, oil drums, oil or fuel transfer valves and fittings, shall be checked regularly for drips or leaks, and shall be maintained in order to prevent spills into State waters. In the event of any discharge of oil, fuel, or other chemicals into State waters, or onto land with a potential to enter State waters, containment and cleanup shall begin immediately and be completed as soon as possible. Spills into State waters, or onto land with a potential to enter State waters, shall be reported immediately to the Oregon Emergency Response System, phone (800) 452-0311.

Dredging by Others

The conditions in this certification are binding upon the Corps and any agent or contractor that the Corps may retain to undertake any or all parts of this project.

Disposal

The following conditions shall apply to the disposal component of this project:

Upland Disposal

The following conditions are provided to protect outmigrating juvenile salmonid smolts.

Upland disposal sites shall be large enough to accommodate the quantity of material and water to be placed there in order to allow adequate settling. Return water turbidity from any constructed cell or upland site shall not exceed 10 percent above the turbidity in the Columbia River immediately adjacent to the disposal site. If the disposal cells contain weirs, they shall be maintained at a height that allows no more than three inches of overflow water from the cell.

Adequate settling time is to be allowed in the upland settling basins to ensure that turbidity levels in-river are maintained at or below the ten percent water quality standard.

Use filter bags, sediment fences, silt curtains, leave strips or berms, or other measures sufficient to prevent movement of spoils. These measures shall be inspected and maintained daily to ensure their proper function.

In-River Disposal

In-River disposal shall be conducted in accordance with the turbidity, dissolved oxygen and best management practices detailed above.

Flowlane disposal within Oregon waters in areas deeper than 65 feet around River Mile 5 and between River Miles 27 and 42 is not allowed. The Corps shall not conduct flowlane disposal of materials from the construction of this project, or of subsequent maintenance materials from this project, in estuarine waters deeper than 65 feet until the results of ongoing sturgeon studies have been obtained, have been fully evaluated by the Adaptive Management Team, and a determination made as to whether these areas may be used.

No in-river disposal is to occur between River Miles 35 and 75 during peak eulachon (smelt) outmigration downstream from the eulachon spawning areas.

No bottom accumulation of sediments shall be allowed outside designated disposal or ecosystem restoration projects. The Corps shall ensure that sediments disposed in-river disperse in a uniformly thin layer.

General Conditions

The certification is valid for five years from the date of issuance. DEQ assumes this will cover initial construction for two years and three years of maintenance dredging. Continuing maintenance dredging beyond the five year term of this certification will require separate certifications every five years, as in the past.

DEQ reserves the right to modify, amend or revoke this certification, as necessary, in the event new information indicates that dredging/disposal activities are having a significant adverse impact on State water quality or critical fish resources.

A copy of this certification letter shall be kept on the job site and be readily available for reference by the Corps, DEQ, contractors, and other appropriate state and local government inspectors.

This certification is provided in respect to the project represented in the above letters of application. It remains valid for the dredging and disposal activities associated with the project as specified. The certification is invalid if the project is operated in a manner not consistent with the project description.

Failure to comply with the conditions of this certification may lead to revocation of the certification.

DEQ requires site access on day of request.

The applicant shall notify DEQ of any change in the ownership, scope, or construction methods of the project subsequent to certification.

Reporting

The Corps shall develop and maintain a publicly accessible web page upon which data collected as a result of the conditions in this certification relating to turbidity, dissolved oxygen and toxics shall be posted. Data shall be posted in as close to real-time as possible. The web page should be constructed similarly to the Corps' web page that reports hourly total dissolved gas and associated data from the various Columbia River hydropower projects.

At the discretion of the Director, the Corps shall provide such reports to the Environmental Quality Commission, or such other forums as the Director shall determine appropriate, on the progress and execution of this project. The Director will provide adequate notice of such reports, which shall be not less than 30 days.

Adaptive Management

Where conditions of this order require adaptive management, an Adaptive Management Team (AMT) will be used to review and/or develop data, information or issues, and to arrive at a consensus regarding how to respond. The AMT will consist of three teams: a technical team, a management team and a dispute resolution team.

The technical team will review research, monitoring and other data, information and issues relevant to the adaptive management conditions, and determine actions to be taken in response to such data, information and issues. In addition, the technical team will coordinate with the federal adaptive management process created under the Biological and conference opinions.

The technical team will act by consensus. In the event that the team is unable to achieve a consensus within a reasonable time under the circumstances, any member of the team may refer the matter to the management team.

The management team will review matters referred by the technical team and provide oversight to the technical team and the Corps in order to help coordinate the requirements of the state and federal agencies related to the project. The management team will act by consensus. In the event that the team is unable to achieve a consensus within a reasonable time under the circumstances, any member of the team may refer the matter to the dispute resolution team.

The dispute resolution team will review matters referred by the management team. The dispute resolution team will act by consensus. In the event that the team is unable to achieve a consensus within a reasonable time under the circumstances, the matter in question shall be resolved by the federal or state agency or agencies with regulatory jurisdiction.

Each team will include one or more members from DLCD, DEQ, WDOE and the Corps. The members of the dispute resolution team will be the Directors of the state agencies, and the Commander of the Portland District of the Corps. The members of the other teams will be designees of the state agencies and the Commander of the Portland District of the Corps. The state agencies will designate one person to coordinate the activities of the teams, which responsibility will be rotated between the two states over time. The teams will consult with local governments, Indian Tribes, other state and federal agencies, and involve the public, as appropriate under applicable state and federal laws and policies.

A group may act by consensus where no member of the group formally opposes the particular action in question.

No provision of this condition is intended to or does alter or supercede the authorities or duties of DEQ, the Oregon Department of Land Conservation and Development (DLCD), or the Washington Department of Ecology relating to the project. In addition, this condition is not intended to, and does not alter, limit, or repeal any authorities of DEQ, DLCD or WDOE to revoke, suspend, or modify their respective § 401 water quality certifications or coastal zone decisions, or to request remedial action, seek mediation, or to request supplemental coordination with respect to the construction and continued operation of the Project.

OTHER APPLICABLE PROVISIONS OF STATE LAW

The applicant will comply with the following conditions of the DLCD conditional concurrence for the Project, which the Director has determined are necessary to comply with water quality related requirements of other state and local agencies and that are other appropriate requirements of state law according to Section 401 of the federal Water Pollution Control Act. The following conditions are directly related to the following beneficial uses: salmonid fish rearing, resident fish and aquatic life, and fishing.

Dungeness Crab

- (i) The Corps will conduct additional study of crab entrainment to assess seasonal variations and salinity influence on entrainment rates, and to assess differences among various class sizes (e.g. age O+, 1+, 2+).
- (ii) The Corps shall continue with its efforts to develop a crab distribution and salinity model and shall use the best available model as a management tool for scheduling dredging and disposal in the lower estuary to avoid and minimize entrainment and adverse effects of disposal.
- (iii) The Corps will develop and adhere to a crab mitigation strategy designed to avoid and minimize entrainment of Dungeness crab. The strategy shall specify impact thresholds and compensatory mitigation contingencies for unavoidable impacts to Dungeness crab, and shall be developed through the adaptive management process.
- (iv) Hydraulic dredging and flowlane disposal occurring below River Mile 17 and in known or suspected areas of overall high crab abundance, shall be conducted during seasons or river conditions of least crab abundance. The seasons or river conditions of least abundance shall be determined through entrainment sampling at dredging sites correlated with real-time flow and salinity data or through application of a salinity-crab model once a final, scientifically rigorous model is available.

Sturgeon

- (i) The Corps shall continue to utilize the bi-state sturgeon work group to identify and carry out appropriate mitigation measures pending various sturgeon study outcomes.
- (ii) The Corps shall adjust dredging and disposal operations as appropriate, and as indicated utilizing the adaptive management process specified above, if results of the on-going sturgeon telemetry studies indicate negative response in sturgeon behavior to dredging and disposal operations.

- (iii) The Corps shall study the long-term response of sturgeon to habitat changes in deepwater habitat areas (>-50 ft. depth) generated or reasonably likely to be generated from planned flowlane disposal.

Eulachon (Smelt)

No in-water disposal should occur during the period of peak eulachon outmigration (between the 8th and 20th weeks of the year) downstream from identified spawning areas (River Miles 35-75). If in-water disposal is essential during the period of peak outmigration, then the Corps shall further study the potential for eulachon losses as a result of dredged material disposal impacts as determined through the adaptive management process specified above. Appropriate mitigation measures shall be developed based on the study outcomes, as determined through the adaptive management process specified above.

Salmonids

- (i) The Corps shall comply with the Best Management Practices, including timing windows, for dredging and disposal identified in the project [Biological Assessment](#) and referenced in the federal Endangered Species Act [Biological Opinions](#) for the project, unless modified through the federal adaptive management process to further avoid and minimize impacts to salmonids.
- (ii) In the event that substantial, unauthorized deviations from the Best Management Practices occur during dredging and disposal operations, the Corps shall document the occurrence(s) along with the response and remedies implemented. This information will be made available upon request and will be shared through the adaptive management process.
- (iii) The Corps shall provide DLCD with all reports, meeting notices, monitoring and research data, management findings, and other similar information generated under the federal adaptive management process outlined in the project [Biological Assessment](#), the Biological Opinions issued by [NOAA Fisheries](#) and [U.S. Fish and Wildlife](#) for the project, and the [Implementation Plan](#) for the Biological Opinions.
- (iv) The Corps shall provide at least 30 days prior notice regarding issues and actions coming before the federal adaptive management team so that it is possible for the state to provide meaningful input to the federal adaptive management process outlined in the project [Biological Assessment](#), the Biological Opinions issued by [NOAA Fisheries](#) and [U.S. Fish and Wildlife](#) for the project, and the [Implementation Plan](#) for the Biological Opinions. In addition, the Corps will report in a timely manner on all issues considered and actions taken through the federal adaptive management process.

Flowlane disposal shall be restricted as follows

- (a) Flowlane disposal within Oregon waters in areas deeper than 65 feet around Columbia River Mile 5 and between Columbia River Mile 27 to 42 is not authorized. The Corps shall not conduct flowlane disposal of materials from the construction of this Project, or of subsequent maintenance materials from this Project, in estuarine waters deeper than 65 feet until and unless an exception or change to the Clatsop County depth policy has been granted by the county.

- (b) Flowlane disposal within Washington waters in areas deeper than 65 feet between Columbia River Miles 27-42, 54-56, and 72-73 shall not be conducted unless it is carried out in accordance with applicable regulatory decisions of the State of Washington. Flowlane disposal in this vicinity shall be modified or halted if monitoring or research findings indicate negative impacts to sturgeon, an Oregon Coastal Zone resource, through direct disposal impacts or long-term changes in bottom habitats. If such impacts are documented, modified flowlane disposal shall be allowed only as determined through the adaptive management process specified above.
- (c) All flowlane disposal shall be monitored to assess at a minimum: changes in estuarine sedimentation and bathymetry and potential direct and indirect effects of disposal on estuarine species.

Placement of dredged materials at the Miller-Pillar ecosystem restoration site is not authorized under this decision. The Corps shall dispose of the dredged material slated for the Miller-Pillar site at an alternative location or locations. The Corps shall notify DLCD in writing of the alternative site or sites selected, and a supplemental consistency determination shall be submitted for any alternative site or sites that is subject to the Oregon Coastal Management Program and that has not been evaluated by DLCD through this review.

The Corps may complete the estuarine enhancement component of the Project at Lois Island, subject to the following requirements:

- (a) The estuarine enhancement component of the Project at Lois Island must be carried out as described in the following documents, except as specifically modified by the terms of this condition: the Plan Elements for Restoration of Tidal Marsh Habitat at Lois Island Embayment/Response to Oregon Division of State Lands, 6/2/2003; the [Implementation Plan](#) (for meeting the terms and conditions contained in the Biological Opinion), 3/2003; chapter 4 of the [FSEIS](#); and [section 8 of the Biological Assessment](#), 12/2001. In the event of a conflict between the requirements of these documents, they shall take precedence in the order listed.
- (b) Pipeline dredging of material from the temporary construction sump to the Lois Island enhancement component of the Project will occur during the November 1 and February 28 in-water work period.
- (c) The overall goal of the Lois Island enhancement component of the Project is to enhance 191 acres of habitat, as intertidal marsh suitable for salmonid rearing. In carrying out this component of the Project, the Corps must achieve a long-term improvement of existing estuarine functional characteristics, while also ensuring that the existing biological productivity of the estuary is maintained. The primary functional characteristics that must be improved for this component of the Project are habitat for juvenile salmonid rearing. The biological productivity and functions that must be maintained are the productivity and functions that result from the Select Area Fishery program at Tongue Point.
- (d) The overall goal of the Lois Island enhancement component of the Project will be achieved when, using the following success criteria, as measured over a one-year period at least two years after completion of construction of this component of the Project:
 - (i) dredged material is placed at a target elevation of approximately 6.5 feet mean lower low water (MLLW); final elevations will be based on elevation surveys of existing tidal

marsh habitat (control area) adjacent to the enhancement area, as set forth in [Ecosystem Restoration Feature \(ERF\) 1](#) of the [Implementation Plan](#);

- (ii) tidal marsh plant cover is at least 75 percent of the plant cover at control sites, as set forth in [ERF 1](#) of the [Implementation Plan](#);
- (iii) benthic invertebrate productivity is at least 75 percent of the levels measured at control sites, as set forth in [ERF 1](#) of the [Implementation Plan](#);
- (iv) juvenile salmonid/fisheries occurs at levels at least 75 percent of the level at control sites, as set forth in [ERF 1](#) of the [Implementation Plan](#);
- (v) the biological productivity of the Select Area Fishery program in the at Tongue Point has been maintained, by increasing spring chinook production at the Young's Bay and Blind Slough terminal fisheries sites by 500,000 smolts at each site, by distributing the existing coho salmon production at Tongue Point between the Young's Bay and Blind Slough sites, and by evaluating water quality and conducting a test fishing sampling program at the potential future select area fishery site in Grant Slough (directly upstream of the current Blind Slough site) as specified in the letter from ODFW to DLCD and DEQ dated May 30, 2003.

(e) Monitoring. Final identification of elevations, staging, construction plans and control sites will be provided at least three months prior to the start of construction of this component of the Project. A pre-project report for baseline success criteria (ii)-(iv) at control sites, per (d) above, shall be provided at least three months prior to the start of construction of this component of the project. A post-construction report of at least three cross-sections for as-built elevations shall be provided within three months following the completion of construction of this component of the Project. Following completion of the construction of this component of the Project, monitoring reports for each of the success criteria (ii)-(iv), per (d) above, shall be provided in at least years 2, 6, and 10 as provided in [ERF 1](#) of the [Implementation Plan](#).

(f) Adaptive Management. In the event that one or more of the success criteria have not been achieved within six years of completion of construction of this component of the project, the Corps will, within 6 months, present proposed actions to achieve the criteria, which actions may include (but which are not limited to) those actions set forth in [ERF 1](#) of the [Implementation Plan](#). The Corps will develop its proposed actions using the adaptive management framework set forth in this decision. If, following that process and any other process required by law, DLCD determines that the proposed actions will not achieve the success criteria, the state's consistency concurrence is revoked.

(g) In the event that the Corps elects not to proceed with the Lois Island component of the project, it shall dispose of the dredged material slated for the Lois Island site at an alternative location or locations. The Corps shall notify DLCD in writing of the alternative site or sites selected, and a supplemental consistency determination shall be submitted for any alternative site or sites that is subject to the Oregon Coastal Management Program and that has not been evaluated through this review.

Dredging of the Astoria turning basin shall occur during the standard in-water work window of November 1 through February 28 unless a waiver of the standard timing window is approved by DLCD after consultation with relevant agencies.

Sediments from within the Astoria turning basin shall be tested in accordance with the [Dredged Material Evaluation Framework](#) (DMEF) prior to dredging. Sediment testing results shall be provided to DLCD,

DEQ, City of Astoria, and Port of Astoria prior to dredging. Any materials exceeding DMEF thresholds shall be disposed of at an upland site approved by DEQ and in accordance with any other applicable local, state, and federal requirements.

Dredged materials from the Astoria turning basin that are deemed suitable for in-water disposal shall not be disposed of in a location or manner that is contrary to the conditions of this concurrence decision.

CONDITIONS ARE NOT SEVERABLE

The conditions in this water quality certification are a comprehensive package. In the event that any condition or conditions of this certification is found to be invalid by a court with jurisdiction to review this certification, the certification in its entirety is revoked when the order of such court becomes final and any pertinent appeal periods have ended.

NOTICE OF OPPORTUNITY FOR CONTESTED CASE HEARING

You have the right to a contested case hearing before the Environmental Quality Commission regarding this certification and the conditions included in the certification. The hearing will be conducted pursuant to OAR 340-011-0097 to 340-011-0131 and the applicable provisions in ORS 183.413 to 183.470 and OAR 137, division 003. To exercise this right, you must file a written request for contested case hearing and an answer within 20 calendar days from the date of service of this notice. The answer must comply with the requirements set out in OAR 340-011-0107.

A request for a contested case hearing and answer must be sent to: Stephanie Hallock, Director, Oregon Department of Environmental Quality, 811 S.W. Sixth Avenue, Portland, Oregon 97204. Following the receipt of a request for a hearing, you will be given additional information regarding the conduct of the proceedings and notified of the time and place of the hearing.

In addition, you may request information about the possible use of alternative dispute resolution opportunities under ORS 183.502, including mediation or any other collaborative problem-solving processes.

CERTIFICATION

DEQ hereby certifies that this project complies with the federal Clean Water Act and state water quality standards, if the above conditions are adhered to during this project.

Sincerely,

Michael T. Llewelyn
Administrator
Water Quality Division